

ABSTRACT OF THE DISCLOSURE

A recombinant vaccine that is useful for immunizing fish against ciliated ectoparasitic protozoans that cause white spot disease also known as 'ich'. The disease is caused by *Ichthyophthirius multifiliis* which is a ciliated ectoparasitic protozoan that is an obligate parasite and therefore cannot grow *in vitro*. The instant vaccine replaces chemotherapy and vaccines prepared from *I. Multifiliis* production in live fish. The effective element of the vaccine is a recombinant fusion protein derived from an artificial DNA sequence for immobilization antigen, repeat I, of *Ichthyophthirius multifiliis*. The novel DNA nucleotide and amino acid sequences are disclosed.